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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/002,868      | 11/15/2001  | Michael Belman       | P05378US0           | 4795             |

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SUITE 3200  
DES MOINES, IA 50309-2721

EXAMINER

SEFER, AHMED N

ART UNIT PAPER NUMBER

2826

DATE MAILED: 11/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/002,868

Applicant(s)

BELMAN, MICHAEL

Examiner

A. Sefer

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2. Claims 1, 2 and 6-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada et al. (JP 9-63805).

Yamada et al disclose in fig. 1-2 a chip resistor comprising a substrate 1/11 having opposite parallel symmetrical first and second surfaces, and a central longitudinal plane of symmetry; separate and spaced first and second resistive layers 2/12 or thick film resistive layers (as in claim 2) on the first and second surfaces, respectively, electrically connected in parallel to each other or connected in parallel by end terminals on ends of a substrate (as in claim 6), wherein the terminals are adopted for mounting to a circuit board (as in claim 7); and the first and the second surfaces of the substrate being symmetrically located with respect to and equidistant from the central longitudinal plane so that when electrical current passes through the resistive layers, a temperature distribution within the substrate will be substantially symmetrical

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about the central longitudinal plane of the substrate for eliminating thermal bending thereof.

As to claim 8, Yamada et al disclose first resistive layer and second resistive layer are symmetric about the central longitudinal plane.

3. Claims 1 and 5-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Witt et al. US Patent No. 6,404,324.

Witt et al disclose in figs. 1-5 a chip resistor 10 comprising a substrate 12 having opposite parallel symmetrical first and second surfaces, and a central longitudinal plane of symmetry; separate and spaced first and second resistive layers 14, 16 on the first and second surfaces, respectively, electrically connected in parallel to each other or connected in parallel by end terminals on ends of a substrate (as in claim 6), wherein the terminals are adopted for mounting to a circuit board (as in claim 7); and the first and the second surfaces of the substrate being symmetrically located with respect to and equidistant from the central longitudinal plane so that when electrical current passes through the resistive layers, a temperature distribution within the substrate will be substantially symmetrical about the central longitudinal plane of the substrate for eliminating thermal bending thereof.

As to claim 5, Witt et al disclose an area of the first resistive layer is substantially equal to that of the second resistive layer such that the chip resistor with both resistive layers tolerates higher instantaneous pulsed power than either layer could provide separately and individually without the other resistive layer.

As to claim 8, Witt et al disclose first resistive layer and second resistive layer are symmetric about the central longitudinal plane.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Witt et al. in view of Huck US Patent No. 5,543,775.

Witt et al disclose all the claimed subject matter but do not specifically teach the use of thin film resistive layers.

Huck teaches (see abstract) the advantage of using thin film resistive layers in temperature sensing devices or as a resistance heating element.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to employ a thin film resistive layer, since thin film resistive layers would react more quickly to a surge.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Witt et al. in view of Thompson US Patent No. 4,064,477.

Witt et al disclose all the claimed subject matter but do not specifically teach the use of foil resistive layers.

Thompson discloses (see col. 1, lines 5-26) a foil resistive layer.

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to substitute the thin or thick film resistive layer of the prior art with a foil resistive layer, since that would allow a uniform current density.

### ***Conclusion***

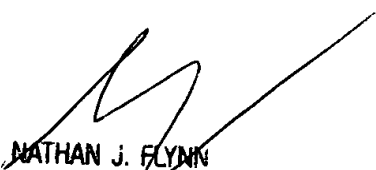
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Fukaya et al. (JP 11-251105) disclose a thick film resistive element with a high withstand voltage pulse characteristic.
- b. Mori et al. US ref. 5,510,594 disclose a thick-film circuit component.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to A. Sefer whose telephone number is (703) 605-1227.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J Flynn can be reached on (703) 308-6601.

ANS  
November 11, 2002

  
NATHAN J. FLYNN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800